

RUC 101: The What and Why of RUC

May 3, 2018



OUTLINE

- History of the Gas Tax and Its Challenges
- What is RUC and Why Consider It for Road Taxation?
- Vehicle Efficiency Comparison
- Important Findings from Previous Studies
- RUC System Challenges
- RUC West and Efforts in Other States

HISTORY OF THE GAS TAX

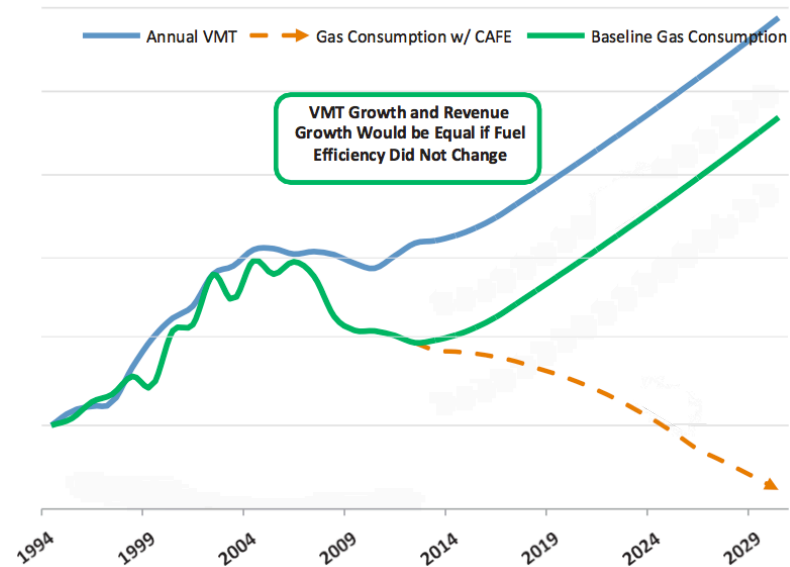
- “User Pays Principle”
- Instituted first by Oregon in 1919
- Utah followed in 1923 (2.5 ¢/gal)
- Not indexed to inflation or miles driven
- 24.5 ¢/gal from 1997-2015
- 29.4 ¢/gal from 2016-present
- Federal rate 18.4 ¢/gal 1992-present



Image courtesy of Oregon Department of Transportation

GAS TAX CHALLENGES

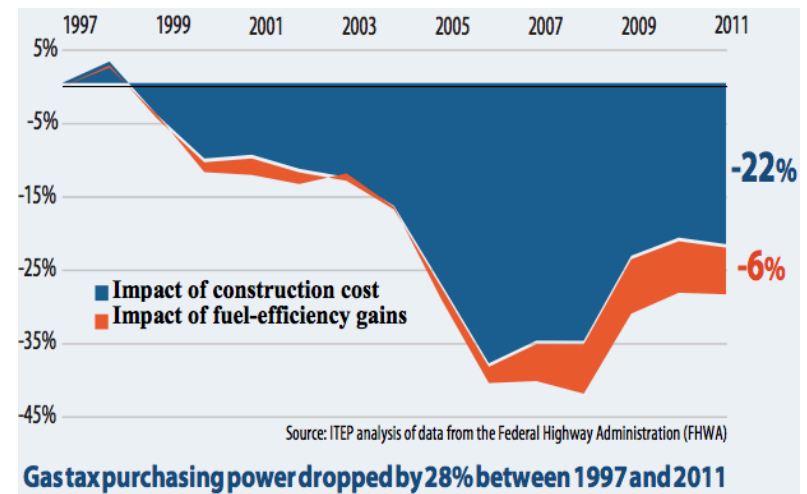
- Increasing disparity in MPG invalidates the user pays principle
- Doesn't keep up with increases in miles driven anymore
- CAFE Standards will slow revenue growth



*Based on California data

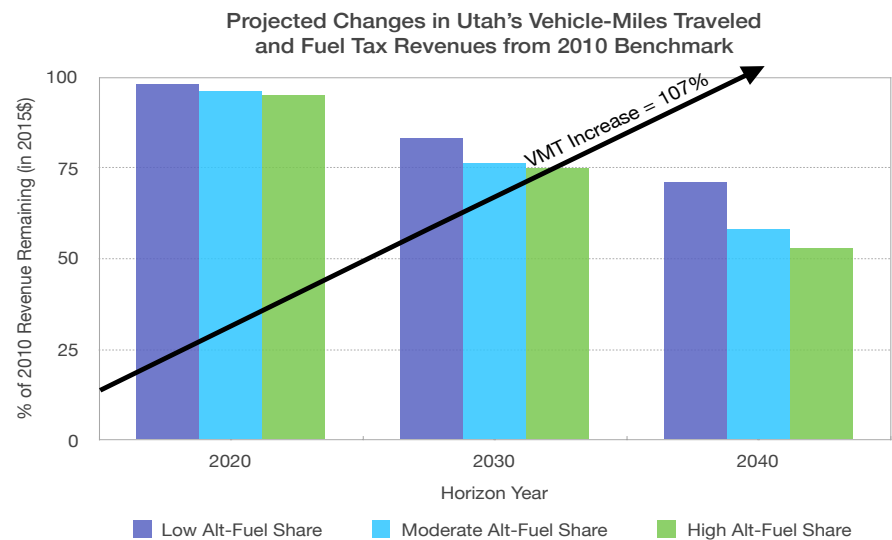
GAS TAX CHALLENGES

- Doesn't keep up with construction cost inflation



GAS TAX CHALLENGES

- Utah-specific projections of revenue and VMT



Source: "Impact of High Efficiency Vehicles on Future Fuel Tax Revenues in Utah", Resource Systems Group, Inc. (2015).

WHAT IS RUC?

- User fee charged in proportion to miles driven
- Similar to utilities such as water, natural gas, or electricity
- Being considered as replacement of existing gas tax, not a new tax



Water



Gas



Electricity

WHY CONSIDER RUC-BASED TAXATION?

1

FUNDING POWER

As cars become more fuel-efficient, RUC systems preserve revenue while gas-based taxation erodes.

2

FAIRNESS

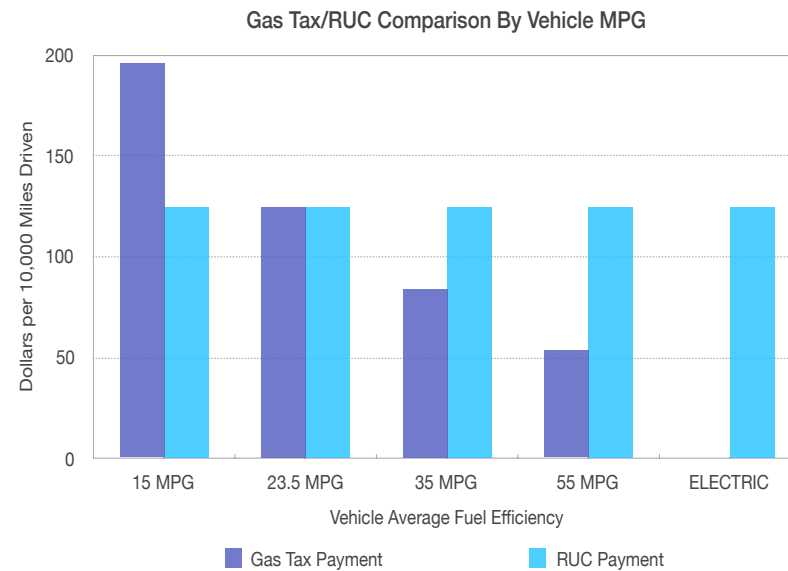
Drivers would pay RUC fees based on impact to the system (i.e. miles driven) rather than on fuel consumed.

3

EFFICIENCY PRESERVED

Only 10-15% of gas price is state taxes. Most of the rest is for fuel itself, so incentives would remain for use of efficient vehicles.

VEHICLE EFFICIENCY COMPARISON



IMPORTANT FINDINGS

- All passenger vehicle types create essentially the same amount of road maintenance and capacity needs
- Transition to a RUC is not expected to negatively impact low-income populations



IMPORTANT FINDINGS

- Privacy concerns are valid, but there are ways to address them

You are in control

Regional pilot participants will choose the mileage reporting option that is right for them. If they want to have the added features private vendors offer, they can choose a GPS-enabled device. If they prefer to keep things totally private, they can choose a non-GPS enabled device. Non-GPS options still offer added value to drivers, such as battery and engine health and driver scores, but do not gather information such as parking location. Even if a driver chooses the GPS-enabled option, the private vendor only sends the number of miles driven to the state – nothing else.

For GPS and Non-GPS enabled devices
What data does the vendor send to the state?

only this:  **000048**
Miles Driven that Day

Not any of this:

-  **Driver Information** (Name, Age, Address)
-  **Location**
-  **Speed**
-  **Running a Stop Light**
-  **Driving Aggressively**

IMPORTANT FINDINGS

- Rural drivers tend to drive more miles in less fuel-efficient vehicles

FACTS ABOUT CURRENT DRIVING PATTERNS IN UTAH

Characteristic	Urban	Rural
Average Daily Trips Per Household	6.3	6.2
Average Trip Length (miles)	7.5	8.4
Average Daily Miles Per Household	47.7	52.6
Average Fuel Efficiency (mpg)	22.8	21.1
Average Vehicle Age (years)	9.5	10.7
Number of Households	597,480	39,660



Source: Utah-specific data from *Financial Impacts of Road User Charges on Urban and Rural Households*

IMPORTANT FINDINGS

- Rural users are likely to pay less under a RUC than under the gas tax

PROJECTED CHANGE IN STATE TAX PAYMENTS OF MOVING FROM GAS TAX TO RUC SYSTEM*

Characteristic	Urban	Rural
Average % Change	+0.6%	-5.5%
Annual \$\$ Change per Household	+\$1.35	-\$14.70
Annual Total \$\$ Change	+\$806,000	-\$583,000



Source: Utah-specific data from *Financial Impacts of Road User Charges on Urban and Rural Households*

REALLY IMPORTANT FINDINGS



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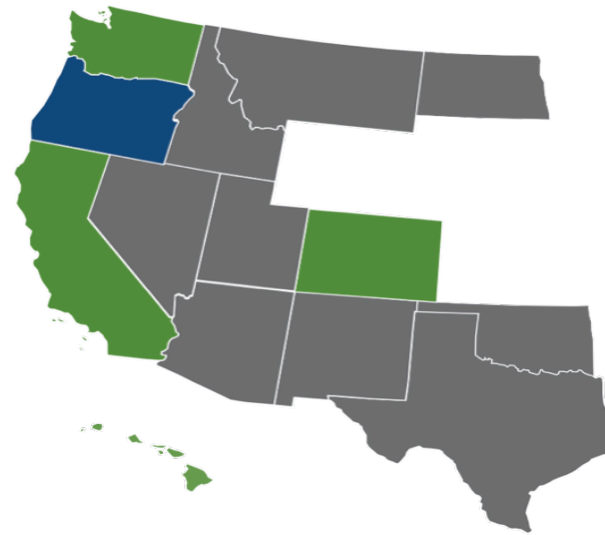


RUC SYSTEM CHALLENGES

- Public perception and acceptance
 - Enforcement
 - Technology
 - Data accuracy
 - Out-of-state driving
 - Privacy protection
 - Administrative costs
- 

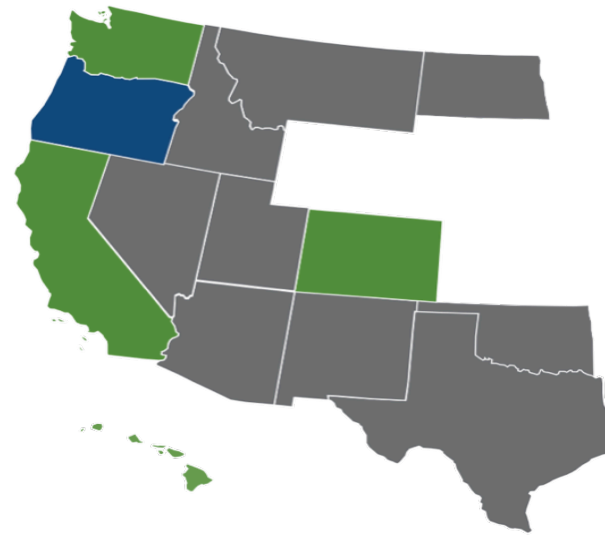
RUC WEST CONSORTIUM

- 14 western states
- 3 tier groups:
 - Implementing (OR)
 - Piloting (CA, CO, HI, WA)
 - Research only (all others)



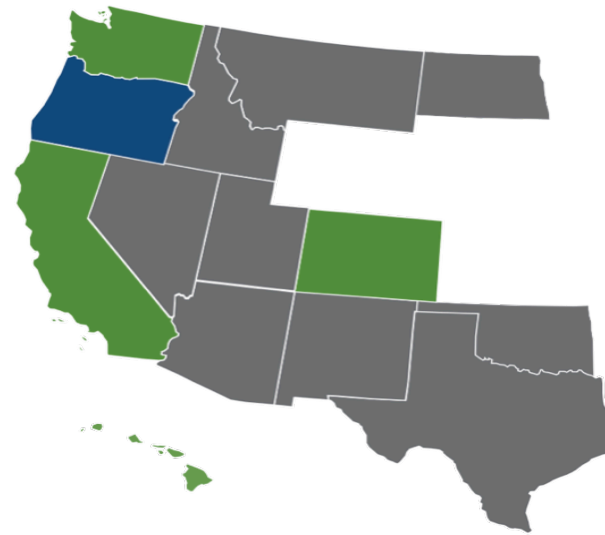
RUC WEST CONSORTIUM

- Active/completed research projects
 - Privacy protection
 - Addressing out-of-state drivers
 - Vendor certification
 - Urban/rural impacts
 - Rate structures
 - Technology



RUC WEST CONSORTIUM

- Likely future research
 - Administrative costs
 - Evasion and enforcement
 - Connected and autonomous vehicles



RUC EFFORTS IN OTHER STATES

- California
 - Large pilot with 5,000 vehicles
 - Different technology options
 - Large set of final reports with lessons learned
 - Emphasis on testing of privacy protections



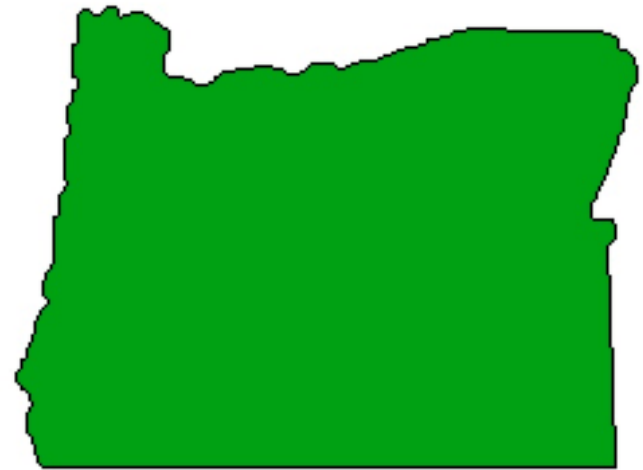
RUC EFFORTS IN OTHER STATES

- Colorado
 - Small pilot project of 100 vehicles
 - Simulated revenue
 - 3 mileage reporting options
 - Various fuel efficiency types
 - Urban and rural drivers



RUC EFFORTS IN OTHER STATES

- Oregon
 - Several pilot projects over the last 10 years
 - Current program (OReGO) collects actual revenue from volunteer enrollment (max 5,000 people)
 - Multiple reporting options – GPS and non-GPS



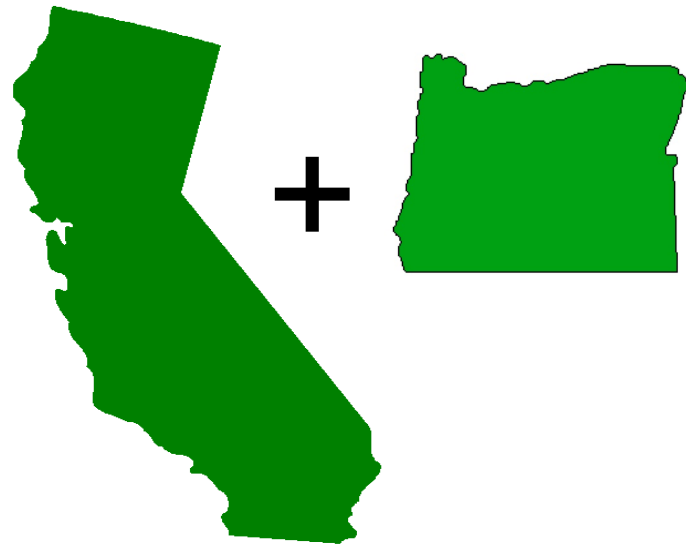
RUC EFFORTS IN OTHER STATES

- Washington
 - Pilot project running in 2018
 - 2,000+ vehicles enrolled
 - Simulated revenue
 - Small element of out-of-state driver testing with northern Idaho



RUC EFFORTS IN OTHER STATES

- Regional Pilot (CA and OR)
 - Beginning in 2019
 - Will test interoperability between two separate states
 - Collect mileage driven within drivers' home state and in the neighboring state



Questions?

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VEHICLE TYPE BREAK-EVEN POINTS

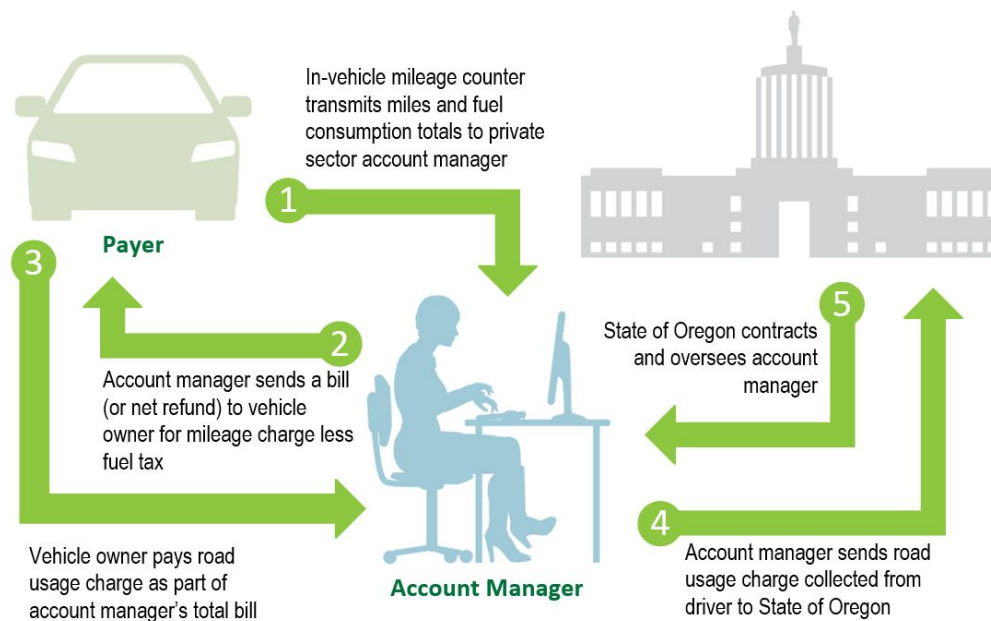
Year	Vehicle Type							
	Electric		Gas Hybrid		Plug-In Hybrid		Other	
	Fee*	Miles**	Fee	Miles	Fee	Miles	Fee	Miles
2019	\$ 60	4800	\$ 10	1511	\$ 26	2816	\$ 60	4800
2020	\$ 90	7200	\$ 15	2266	\$ 39	4224	\$ 90	7200
2021	\$ 120	9600	\$ 20	3021	\$ 52	5632	\$ 120	9600

*Yearly one-time fee option set forth in SB136

**Number of annual miles (per vehicle) above which it would not make economic sense for a person to register for RUC

Assumptions		
RUC Rate:	\$0.0125	/mi
Gas Tax:	\$0.294	/gal
Gas Hybrid:	50	mpg
P-I Hybrid:	90	mpge

HOW RUC WORKS



SB136 DIRECTIVES

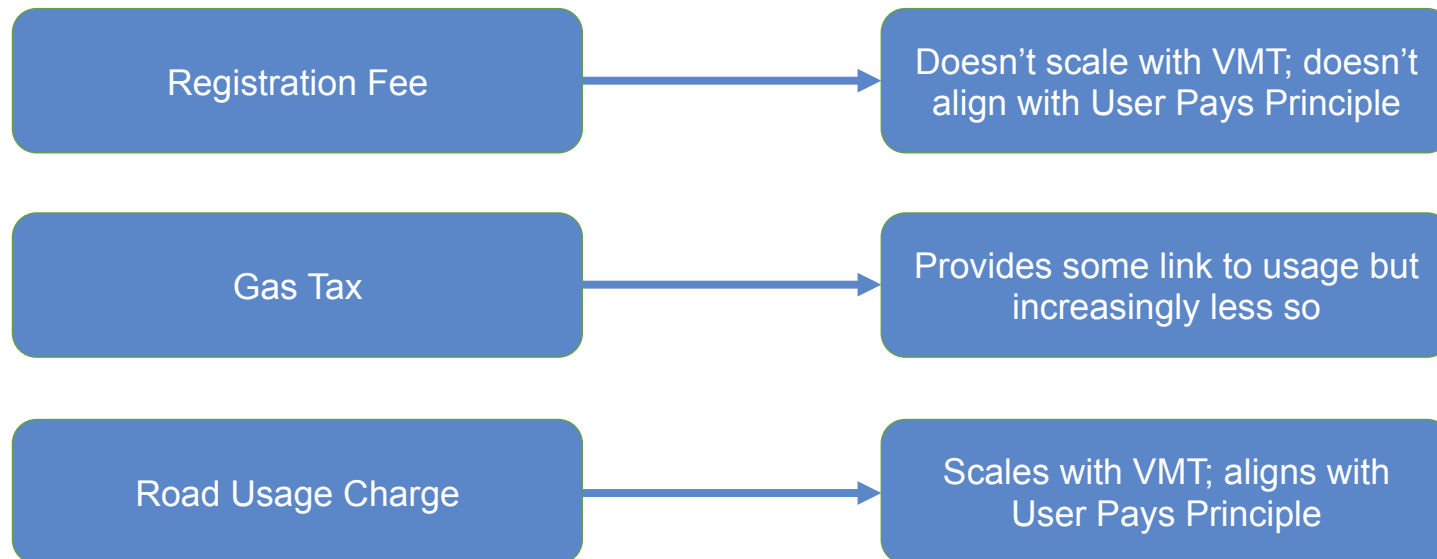
- Establish a broad Advisory Committee
- Submit annual report to legislative committees and Transportation Commission beginning in 2019
- Implement RUC program for alternate fuel vehicles beginning January 1, 2020
- Owners can opt out of RUC by paying a flat fee specific to their vehicle type (EV, hybrid, or “other”)
 - Graduated fees starting in 2019 and culminating in 2021
- Broader pilot effort after alternate fuel RUC program

TIMELINE

- May 2018 – Advisory Committee kickoff in May 2018
- Oct 2018 – draft alternate fuel vehicle RUC framework
- Dec 2018 – final framework
- Jan-Mar 2019 – legislative process
- Mar 2019 – hire account manager(s)
- Apr-Sep 2019 – develop system protocols
- Oct-Dec 2019 – beta test alternate fuel RUC system
- Jan 2020-? – operate alternate fuel RUC system
- Jan 2020 – begin planning of broader pilot
- Jan 2021 – begin broader pilot operations



WHY CONSIDER RUC-BASED TAXATION?



BASIC RUC PROCESS

- Basic process used in other states' pilot projects
 - State contracts with private vendors to collect mileage data and fees
 - Drivers enroll in program and choose reporting technology/vendor
 - Vendor collects miles driven
 - Vendor sends invoices to vehicle owners
 - Vehicle owner pays invoiced amount to vendor
 - Vendor reports mileage totals to the State and remits driver payment

